

## REMARKS

The Examiner has indicated that a number of claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, claims 39 and 50 and 55 have been so rewritten as new independent claims 61 and 71 and 75, respectively and are therefore allowable over the cited art as are all associated dependent claims. Claims 39, 42, 43, 50, 53 and 55 have been canceled in favor of claims 61, 64, 65, 71, 74 and 75 respectively. It should be noted as well that new claim 80 has been added to recite the same limitations as the allowable independent claims.

The Examiner has rejected a number of claims under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,104,701 issued to Avargues that describes a method and system for performing a least cost routing function for data communications between end users in a multi-network environment. The Examiner relied upon a brief description of a wildcard optimization algorithm at column 10, lines 31 – 62 that reduces the minimum number of resource id's to be registered in the node tables. The algorithm is illustrated by an example using a six digit telephone number "ABabcd" where "abcd" is variable. Accordingly, the Avargues algorithm requires that, "[i]f the range ABabc0 – ABabc9 belongs to the range that has been given by the configuration (i.e., is contained by the interval [low, high]), then the wildcard ABabc+ can be used. Furthermore, if the range ABab00-ABa999 belongs to the configured range, then the wildcard ABab+ can be used, covering a wider range than before. Again, the intervals ABa000-ABa999 (potentially leading to ABa+) and AB0000-AB9999 (potentially leading to AB+) are checked." (col. 10, lines 13-20) Therefore, Avargues provides a simplistic and non-predictive approach to determining an optimized set of numbers suitably disposed to optimally represent a given range of numbers by a set of wildcard entries. In particular, the approach used by Avargues merely uses trial

and error that requires comparing the configured range (i.e., the range of numbers to be represented) to a larger range of numbers that includes the configured range in order to determine the optimization to be used. In the example provided by Avargues, a range of 324000 – 325324 requires comparing 320000 – 329999 (i.e., a range of numbers greater than the given range) to the given range 324000 – 325324 in order to reveal that 32+ can not be used.

In contrast, claim 4 recites,

“representing and optimizing the second, third, and fourth sub-ranges as a plurality of entries using wildcards within the optimized set, **wherein the optimizing only includes the given range of numbers**”. (emphasis added)

Therefore, the invention as recited in claim 4 limits the optimization operations to those numbers included in the given range of numbers and no more which is in direct contrast to the methodology of Avargues, which requires checking number outside of the given range (i.e. optimizing the range of 324000 – 325324 requires comparing 320000 – 329999 which clearly includes numbers (325325 – 329999) that are outside of the given range 324000 – 324324). In this way, the optimizing provided by claim 4 does not extend to those numbers beyond the numbers included in the given range of numbers in contrast to the method described by Avargues. Therefore, the Applicant believes that claim 4 is allowable over the cited art.

Claims 38 – 60 previously added by the Applicant have been rejected by the Examiner as being unpatentable over Avargues et al. It is argued by the Examiner, “Avargues still discloses from the example (col. 10, lines 4 – 63), AB=32 and high is 325324, which teaches that the ranges for the numbers of 324000 to 325324 are the maximum degree of optimization...” at pages 7 second paragraph to page 8 first paragraph of the Final Office Action.

However, claim 38 recites,

**“(c) determining a difference position between a lowest value sub-range number and a highest value sub-range number indicating a maximal degree of optimization of the sub-range”**

In this way, claim 38 provides a predictive approach to optimization in that the maximal degree of optimization (i.e., how much a particular sub-range can be optimized) is immediately known based upon the determination of the difference position in contrast to Avaragues where the maximal degree of optimization (i.e., how much a particular sub-range can be optimized) is not known until completion of the optimization procedure. Therefore, the invention as recited in claim 38 provides an important and timely prediction of the maximal optimization for a range in contrast to the “hindsight” approach used in Avaragues.

Independent claims 49, 54, and 60 recite substantially the same limitations as claim 38 and are therefore also allowable over the cited reference for at least the reasons stated for claim 38.

Accordingly, applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. If after reviewing this amendment, this case is not considered to be in condition for allowance for any reason, the Examiner is respectfully requested to contact the undersigned at the number set forth below.

Respectfully submitted,

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